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boundaries occurring along the direction of the image lines, i.e., the direction of the arrangement of the flexible substrates 4. In another type of LCD device (refer to FIG. 15(b)) which also has a flexible substrates 4 in number equal to an integral multiple of 4, the cut-outs 10 are also provided on the four boundaries. FIG. 15(b) exemplifies 12 substrates for the LCD device. Therefore, a total of five protrusions 13 are provided (i.e., both edges and three of the four boundaries) on the components. These components provided with such a number of protrusions 13 can be used for any types of LCD device so long as the LCD device has flexible substrates 4 in number equal to an integral multiple of 4.

The descriptions which are given above can be expressed as a general principle. When the number of flexible substrates 4 provided in a given LCD device 1 and the number of flexible substrates 4 provided in another LCD device 1 are both an integral multiple of  $n$  (where  $n$  is a positive number equal to or greater than 2 and may be selected in both the LCD devices independently of each other), the spaces formed by the cut-outs 10 are overlapped in both devices 1 at a number ( $n-1$ ) of locations along the direction in which the boundaries between the flexible substrates occur, and at both ends, thereby amounting in a total of ( $n+1$ ) locations. Therefore, if the protrusions 13 are provided only at these locations, then the components which are provided with the protrusions 13 can be shared in multiple types of LCD devices 1. Adopting this type of structure enables the components to be shared in a variety of types of the LCD devices, and thus the cost of the LCD devices can be reduced.

As described above, each protrusion 13 is located so as to pass through the center of opposing cut-outs 10 formed in two neighboring flexible substrates 4, and a plurality of protrusions 13 are arranged at equidistant intervals. In the present invention, there is a margin in the locations of the protrusions 13 due to the cut-outs 10 provided in the flexible substrates 4, and thus there is a larger design choice in the arrangement of the protrusions 13. Furthermore, the deformation of the external shield 7 can also be prevented even if the protrusions 13 are not placed at equidistant intervals. Therefore, when designing the LCD device 1, the overlapping spaces among the spaces formed by the cut-outs 10 in various types of LCD devices enable the protrusions 13 to be placed at only those overlapping spaces where the protrusion 13 can pass through. Thus, the components of many types of LCD devices can be shared.

Since the above embodiments are described only for examples, the present invention is not limited to the above embodiments and various modifications or alterations can be easily made therefrom by those skilled in the art without departing from the scope of the present invention.

What is claimed is:

1. A liquid crystal display (LCD) device comprising: a plurality of components including a liquid crystal panel

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having an array of terminals and a backlight unit disposed at rear side of said liquid crystal panel for irradiating said liquid crystal panel; an external housing for covering at least side surfaces of said components; a circuit board disposed at rear side of said backlight unit; at least one flexible substrate having a line pattern thereon for electrically connecting together said terminals and said circuit board, said flexible substrate having therein a cut-out on at least one of side edges of said flexible substrate; and a protrusion protruding from one of said components toward said external housing while passing said cut-out.

2. The LCD device according to claim 1, wherein said components further includes an internal housing member, and said protrusion protrudes from said internal housing member.

3. The LCD device according to claim 1, wherein said components further includes a shield member disposed between said backlight unit and said circuit board, and said protrusion protrudes from said shield member.

4. The LCD device according to claim 1, wherein said protrusion protrudes from said backlight unit.

5. The LCD device according to claim 1, wherein said flexible substrate mounts thereon a driver chip adjacent to said cut-out.

6. The LCD device according to claim 5, wherein said cut-out is of a trapezoid having a top side and a bottom side extending parallel to said one of side edges of said flexible substrate.

7. The LCD device according to claim 6, wherein said cut-out has a circular portion at a position corresponding to an apex of said trapezoid.

8. The LCD device according to claim 5, wherein said cut-out is of a semi-circle.

9. The LCD device according to claim 1, wherein said external housing has a depression corresponding to said protrusion.

10. The LCD device according to claim 1, wherein said at least one flexible substrate include a plurality ( $n$ ) of flexible substrates juxtaposed to one another, and said protrusion has a width larger than a gap between adjacent two of said flexible substrates except at the portion of said cut-out.

11. The LCD device according to claim 1, wherein said protrusion passes a boundary between adjacent said flexible substrates, and at least some of all the boundaries between said adjacent flexible substrates are passed by respective said protrusions.

12. The LCD device according to claim 11, wherein a pair of other protrusions passes outside an area where said plurality of flexible substrates are arranged.

13. The LCD device according to claim 11, wherein a total number of said protrusions and said other protrusions is equal to ( $n+1$ ).

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